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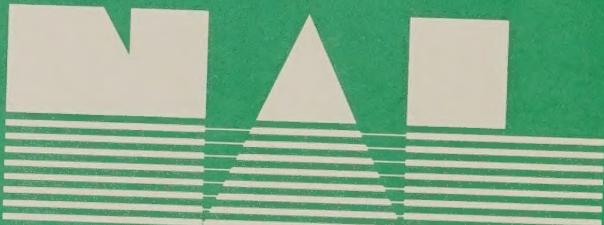
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Developing Financial Indicators for U.S. Farms by Type of Farm

Sara D. Short

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DEVELOPING FINANCIAL INDICATORS FOR U.S. FARMS BY TYPE OF FARM.
By Sara D. Short. National Economics Division, Economic Research Service, U.S.
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ABSTRACT

Aggregate financial data are inadequate for monitoring the farm financial position, given the heterogeneity of today's farm sector. This report summarizes current efforts to further develop a more disaggregated perspective of financial indicators. Balance sheets and various financial ratios are presented by type of farm for selected years. Although the analysis performed indicates that most types of farms experienced some deterioration in their financial position between 1969 and 1982, the development of micro measures is needed to obtain more reliable and accurate barometers of the financial well-being of farms.

Keywords: Type of farm, balance sheets, leverage position, debt burden, rate of return on equity capital.

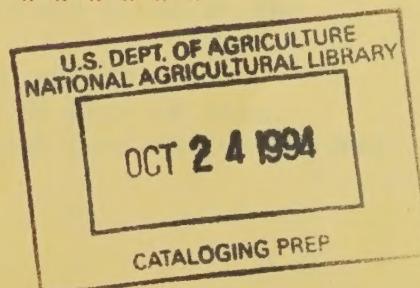
ACKNOWLEDGMENTS

The author gratefully acknowledges the assistance and suggestions of Agapi Somwaru. The U.S. farm balance sheet was disaggregated by type of farm using a methodology similar to the one developed by Somwaru for disaggregating farm income by type of farm.

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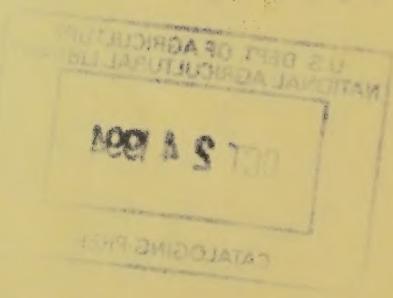
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Developing Financial Indicators for U.S. Farms by Type of Farm

Sara D. Short

INTRODUCTION

The balance sheet for the U.S. farm sector originated after World War II. The farm sector balance sheet was an important tool by which farm financial positions could be monitored.

Agriculture during the forties was homogeneous enough for a farm sector balance sheet to represent micro conditions. But aggregate data inadequately show how changes in supply and demand in the sector affect today's heterogeneous farm sector.

This report summarizes current efforts to further develop a more disaggregated set of financial indicators (1,5). 1/ The U.S. farm balance sheet, excluding farm households, was disaggregated by type of farm using the Standard Industrial Classification code. This coding procedure separates farms into types based on the proportion of sales from a particular commodity. At least 50 percent of sales must come from a commodity group for a farm to be classified as part of that group. This report reviews the methodology employed, demonstrates the uses of such balance sheets, and addresses the future direction of these efforts.

METHODOLOGY

Since the U.S. farm balance sheet is reported as of January 1 (4), data from the censuses of agriculture and farm finance surveys were used to disaggregate by type of farm the two consecutive balance sheets corresponding with the census years (table 1). 2/ 3/ For example, the January 1, 1969, and the January 1, 1970, balance sheets were disaggregated using distributions developed from the 1969 Census of Agriculture and the 1970 Farm Finance Survey (6, 7). This procedure allows for developing financial indicators before and after the income stream is generated. 4/ As a result, changes in the balance sheet measured at two consecutive points can be partially explained by the income generated during that period.

1/ Underscored numbers in parentheses refer to literature cited in the References section.

2/ See appendix tables 1-16 for the resulting balance sheets.

3/ See (2) for a detailed description of census data by type of farm.

4/ See (3) for a detailed description of the procedures used to develop net farm income by type of farm.

Table 1--Distributors used to disaggregate the U.S. farm balance sheet
 (excluding farm households), by type of farm

Balance sheet component	Distributor used	Data source			
		1969	1974	1978	1982
		: and	: and	: and	: and
		: 1970	: 1975	: 1979	: 1983
Physical assets:					
Real estate	Market value of land and buildings	<u>1/</u>	<u>1/</u>	<u>1/</u>	<u>1/</u>
Nonreal estate—					
Livestock and poultry	Livestock, poultry, and poultry products' cash receipts	<u>1/</u>	<u>1/</u>	<u>1/</u>	<u>1/</u>
Machinery and motor vehicles	Market value of machinery and equipment	<u>1/</u>	<u>1/</u>	<u>1/</u>	<u>1/</u>
Crops stored	Crop and crop products' cash receipts	<u>1/</u>	<u>1/</u>	<u>1/</u>	<u>1/</u>
Financial assets	—	—	—	—	—
Liabilities:					
Real estate	Real estate debt outstanding	<u>2/</u>	<u>1/</u>	<u>3/</u>	<u>4/</u>
Nonreal estate	Nonreal estate debt outstanding	<u>2/</u>	<u>1/</u>	<u>3/</u>	<u>4/</u>

--- = Not available.

1/ Census of Agriculture 1969, 1974, 1978, and 1982 (6).

2/ 1970 Farm Finance Survey (7). Averages per farm, by type of farm, for 1970 were adjusted by the number of farms in 1969 in each category.

3/ 1979 Farm Finance Survey (7). Averages per farm, by type of farm, for 1979 were adjusted by the number of farms in 1978 in each category.

4/ Real and nonreal estate debt outstanding were not available. These two components were disaggregated using available data from the 1982 Census of Agriculture on total interest paid by type of farm (6). The allocation of interest paid on real and nonreal estate related debt within each type of farm was prorated using data from the 1979 Farm Finance Survey (7).

Because certain data by type of farm were not available, some assumptions had to be made in order to consistently disaggregate as much of the U.S. farm balance sheet as possible. The following variables were assumed to be identically distributed:

1. The value of livestock and poultry on hand as of December 31 and annual livestock, poultry, and poultry products cash receipts;
2. The value of crops stored as of December 31 and annual crop and crop products cash receipts;
3. Real and nonreal estate debt, respectively, within each type of farm for 1979 and 1982; and
4. Farm and nonfarm related debt.

However, it is possible that these distributional relationships do not necessarily hold. In the first two assumptions, little resemblance may be observed between the stock and flow measures because of storing practices, levels of carry-over stocks, production, marketing practices, and prevailing market conditions. Nevertheless, value of inventory data from the 1979 Farm Finance Survey seem to indicate that the distributions of livestock and crop cash receipts generally capture overall trends in inventories by type of farm. Thus, even though there are some strong conceptual weaknesses with these two assumptions, inventory values have historically accounted for a small portion of the sector's balance sheet. As a result, the distributions of livestock and crop cash receipts were the best available proxies by which inventories could be disaggregated by type of farm.

The third assumption also presents a tenuous relationship, inasmuch as the relative share of real and nonreal estate debt within each type of farm was assumed constant between 1979 and 1982. The 1982 total interest expenses by type of farm were allocated to the real and nonreal estate related debt within each type of farm according to the observed 1979 allocation of real and nonreal estate debt. Distributions of these interest expense estimates were developed and used to disaggregate the U.S. real and nonreal estate debt components by type of farm. As a result, changes in the composition of liabilities by type of farm between 1979 and 1982 are not captured.

Available census data for interest expenses and for outstanding real and nonreal estate debt represent the amount arising only from the operation of the farm business. The disaggregation of the sector's balance sheet was based on levels of debt which were not totally farm-business related. Subsequently, the reliability of the liabilities component is weakened by the assumption that farm and nonfarm related debt were equally distributed among different types of farms.

With regard to the liabilities component, a third assumption was that average levels of debt per farm, by type of farm, for calendar year 1969 and 1978 were the same as those reported for 1970 and 1979, respectively. These average levels were then multiplied by the number of farms in each type category for 1969 and 1978 to derive debt estimates by type of farm. Thus, although the distributions developed from these estimates reflect general debt trends, they do not capture yearly changes in debt levels by type of farm.

After calculating proxy percentage distributions for each component of the balance sheet, based on available census data, U.S. levels of the individual components were multiplied by their respective allocator to yield a disaggregated balance sheet

by type of farm. The data presented in the first column of each appendix table are from (4), while subsequent columns show the results of the above mentioned multiplication. To analyze the estimates developed, various financial indicators were derived (that is, the debt/asset and interest coverage ratios and the rate of return on equity capital). The following section demonstrates how the disaggregated balance sheets and financial indicators can be used to describe financial characteristics of different types of farms. However, given the limitations of the assumptions, the data in this report are intended to be used as relative measures of general trends in financial characteristics of specific types of farms.

DESCRIBING THE FINANCIAL CHARACTERISTICS OF FARMS

One of the most widely used measures of financial strength (security) is the debt/asset ratio (leverage position). The higher the value of this ratio, the larger the claims on the farm business are, relative to the value of total assets. Table 2 shows debt/asset ratios developed from data presented in appendix tables 1-16.

These ratios are generally consistent with the trends in the seventies and eighties: increasing levels of asset values (mainly in the value of farmland) and debt during the seventies; and increasing debt levels in conjunction with declining farmland values during the eighties. Between 1970 and 1979, the debt/asset ratio for all crop farms increased by only about 6 percent, while the ratio for all livestock farms decreased by less than 2 percent. The relatively small change in the ratio for all crop farms during this period was due to a faster rate of increase in the level of total liabilities than the rate of increase in total asset values. Ratios for all livestock farms presented are indicative of the greater rate of increase in the value of assets than that of liabilities.

However, the debt/asset ratio for all crop farms increased almost 25 percent between 1979 and 1983, while the ratio for all livestock farms increased more than 33 percent. These changes resulted from a 50-percent increase in total liabilities during this period and an almost 10-percent drop in the value of real estate assets between 1982 and 1983. Debt/asset ratios increased the most in dairy, poultry and egg, and general livestock farms between 1979 and 1983—well over 50 percent. However, cash grain, cotton, tobacco, and vegetable and melon farms also experienced rapidly escalating ratio values, approximately 30 percent. Overly optimistic expectations during the seventies of continued growth in earnings and/or low to negative real interest rates likely contributed to the large changes in these particular farms' debt/asset. For the most traditionally organized farms (such as cash grain), rapidly escalating farmland values also provided the rationale for farmers and lenders to expand and roll over debt. However, the abrupt reversals of conditions in 1980-81 (declining product demand and farmland values and increasing real interest rates) did not stop the rapid increase in debt levels as farmers experiencing recurrent shortfalls in cash flow continued to borrow funds.

Even though debt/asset ratios have changed throughout the years, the relative position among farm types by debt/asset ratio has generally remained stable. The rankings shown in table 2 are consistent with known organizational patterns of different types of farms. For example, livestock farms are generally capable of operating with relatively higher debt/asset ratios without experiencing serious financial problems because smaller portions of their costs are committed to asset ownership. Thus, although increases in debt/asset ratios indicate deteriorating leverage positions, they do not always reflect the strength or weakness of the farm business.

Table 2--Debt/asset ratios, by type of farm, January 1,
selected years, 1969-83

Type of farm	1969	1970	1974	1975	1978	1979	1982	1983
	Percent							
All farms	17.94	18.07	16.25	17.15	17.44	16.79	19.24	21.48
Crop	15.62	15.90	14.47	14.63	17.22	16.83	18.79	20.98
Cash grain	15.03(7)1/	15.30(6)	12.94(12)	13.07(12)	16.52(10)	16.13(10)	18.68(8)	20.90(8)
Cotton	9.21(12)1/	9.37(11)	18.26(7)	18.29(9)	19.73(4)	19.38(3)	21.93(3)	24.56(3)
Tobacco	37.36(1)	37.92(1)	11.24(13)	11.36(13)	13.88(13)	13.57(13)	15.52(13)	17.18(13)
Other field crop	20.39(5)	20.69(4)	17.16(9)	17.32(10)	19.08(7)	18.67(6)	17.97(11)	20.03(11)
Vegetable and melon	15.02(8)	15.26(7)	13.30(11)	13.40(11)	16.13(11)	15.87(11)	18.28(10)	20.21(10)
Fruit and tree nut	20.71(4)	21.17(3)	21.70(3)	22.04(4)	19.28(6)	18.80(5)	19.06(6)	21.11(7)
Horticulture specialty	10.58(10)	10.78(9)	21.90(2)	22.07(3)	21.18(3)	20.90(2)	21.32(4)	23.18(4)
General crop	9.02(13)	9.17(12)	18.09(8)	18.54(8)	19.70(5)	19.17(4)	20.15(5)	22.53(5)
Livestock	21.65	21.63	20.04	22.25	19.03	17.94	21.24	23.94
Cattle, hog, and sheep	22.58(2)	22.62(2)	18.86(5)	20.56(6)	18.12(9)	17.19(9)	18.34(9)	20.74(9)
Dairy	21.25(3)	21.17(3)	24.92(1)	27.79(1)	23.34(1)	21.85(1)	32.22(1)	36.03(1)
Poultry and egg	19.41(6)	18.74(5)	15.24(10)	20.97(5)	21.29(2)	18.18(7)	26.60(2)	29.33(2)
Animal specialty	11.52(9)	11.55(8)	21.07(4)	23.40(2)	18.52(8)	17.58(8)	15.70(12)	17.67(12)
General livestock	9.57(11)	9.68(10)	18.63(6)	19.79(7)	14.53(12)	13.96(12)	19.00(7)	21.45(6)

1/ Numbers in parentheses indicate relative ranking among types of farms within a specific year by debt/asset ratio.

Sources: Calculated from appendix tables 1-16.

Two other indicators were developed to understand how events of the seventies and eighties affect specific types of farms. The interest-coverage ratio 5/ measures debt burden, and the rate of return on equity capital 6/ describes the returns per dollar of equity invested in the farm business.

Between 1969 and 1982, the interest-coverage ratio for all crop farms (table 3) increased almost 200 percent, while the ratio for all livestock farms increased more than 150 percent. This reflects the much higher rate of increase in interest payments relative to net cash income (tables 4 and 5). Cash grain, cotton, and dairy farms experienced the largest increases in the ratio.

Table 3--Interest coverage ratio, by type of farm,
selected years, 1969-82

Type of farm	1969	1974	1978	1982 1/
All farms	13.97	13.85	21.34	36.63
Crop	11.60	9.00	20.15	33.61
Cash grain	11.44(8) 2/	8.96(10)	26.81(3)	47.54(4)
Cotton	4.72(13)	12.27(7)	19.50(6)	19.05(10)
Tobacco	16.11(6)	5.64(12)	12.82(9)	21.40(9)
Other field crop	9.82(10)	7.92(11)	21.60(5)	23.29(8)
Vegetable and melon	4.74(12)	3.90(13)	6.17(13)	11.30(13)
Fruit and tree nut	14.61(7)	13.57(5)	12.12(10)	31.55(6)
Horticulture specialty	-109.75(2) 3/	10.42(8)	7.86(12)	12.87(12)
General crop	50.13(3)	13.54(6)	23.10(4)	36.32(5)
Livestock	15.97	26.33	22.76	40.58
Cattle, hog, and sheep	20.66(5)	37.12(1)	29.39(2)	51.44(3)
Dairy	10.13(9)	18.05(2)	14.92(8)	31.48(7)
Poultry and egg	6.59(11)	17.14(3)	9.84(11)	18.46(11)
Animal specialty	25.88(4)	9.77(9)	53.78(1)	65.57(2)
General livestock	-181.92(1) 3/	16.69(4)	19.44(7)	57.77(1)

1/ Although interest payments by type of farm were available from the 1982 Census of Agriculture, this ratio was developed using the methodology described in table 5, footnote 1. However, rankings by interest coverage ratio, by type of farm, were the same regardless of whether actual or estimated interest payments were used to develop this ratio.

2/ Numbers in parentheses indicate relative ranking among types of farms within a specific year by interest coverage ratio.

3/ Implies that cash income generated could not cover all cash expenses incurred.

Sources: Calculated from tables 4 and 5.

5/ Interest payments divided by net cash income and interest payments.

6/ Net farm income less returns to operator and unpaid family labor and management, divided by farm business net worth.

Table 4--Net farm income (before inventory adjustment) and net cash income, by type of farm, selected years, 1969-82

Type of farm	1969	1974	1978	1982	1969	1974	1978	1982
					Million dollars			
	Net farm income				Net cash income			
All farms	14,194	28,918	26,835	24,898	17,855	34,202	36,116	36,843
Crop	6,832	22,773	14,030	14,933	8,376	26,106	19,864	21,857
Cash grain	3,572	13,526	4,660	2,885	4,540	15,562	8,574	7,992
Cotton	665	779	781	1,802	844	993	1,181	2,352
Tobacco	552	1,147	945	1,040	605	1,200	1,126	1,302
Other field crop	587	3,023	1,181	2,749	699	3,527	1,721	2,601
Vegetable and melon	762	1,480	1,937	2,365	873	1,643	2,163	2,773
Fruit and tree nut	656	1,266	2,397	1,525	796	1,464	2,727	1,941
Horticulture specialty	-146	448	1,200	1,701	-52	554	1,328	1,830
General crop	184	1,104	929	866	71	1,073	1,044	1,066
Livestock	7,362	6,145	12,805	9,965	9,479	8,186	16,252	14,986
Cattle, hog, and sheep	4,109	2,441	6,514	3,935	5,063	3,161	8,135	5,906
Dairy	2,364	2,780	4,355	4,348	3,265	3,792	5,619	6,374
Poultry and egg	958	489	1,709	2,180	1,143	692	1,971	2,385
Animal specialty	1	273	7	39	40	298	82	130
General livestock	-70	162	220	-537	-32	243	445	191

Source: (3).

Table 5--Interest payments, by type of farm,
selected years, 1969-82 1/

Type of farm	1969	1974	1978	1982
:				
<u>Million dollars</u>				
:				
All farms	2,900	5,500	9,800	21,300
Crop	1,099	2,574	5,011	11,066
Cash grain	586	1,531	3,140	7,242
Cotton	42	139	286	554
Tobacco	116	72	166	355
Other field crop	76	303	474	790
:				
Vegetable and melon	43	67	142	353
Fruit and tree nut	136	230	376	895
Horticulture specialty	27	64	113	270
General crop	71	168	314	608
:				
Livestock	1,801	2,926	4,789	10,234
Cattle, hog, and sheep	1,318	1,866	3,386	6,257
Dairy	368	835	985	2,929
Poultry and egg	81	143	215	540
Animal specialty	14	32	95	248
General livestock	21	49	107	261
:				

1/ An implicit average interest rate for all farms in a given year was calculated as the ratio of total interest paid and the average total debt presented in two consecutive balance sheets. This average interest rate was applied to the average total debt, by type of farm, presented in two consecutive balance sheets to arrive at an estimate of interest payments.

Sources: Calculated from (4) and appendix tables 1-16.

Between 1969 and 1982, the relative position among farm types by interest coverage ratio experienced some dramatic changes. For example, in 1969 cash grain farms had the eighth largest ratio; but by 1978 and 1982, these farms had the third and fourth largest ratios, respectively. These and other changes observed were primarily due to highly fluctuating levels of net cash income in conjunction with rapid increases in interest expenses.

Increasing debt and interest payment levels, fluctuating income levels, and decreasing asset values have generally led to substantially lower rates of return on equity capital (table 6). Between 1969 and 1982, the rate of return on equity capital for all crop farms decreased 16 percent, while this rate decreased about 60 percent for all livestock farms. Between 1974 and 1982, the rate of return on equity capital for all crop farms decreased almost 75 percent, while the rate for all livestock farms decreased about 12 percent. This reversal in deterioration levels is directly related to the point of focus (1969-82 versus 1974-82). Although 1974 was the highest net farm income year on record, livestock farms did not experience the substantial increases in income experienced by crop farms. Instead, the net farm income generated by cattle, hog, and sheep and poultry and egg farms decreased more than 40 percent between 1969 and 1974 (table 4).

CONCLUSION

Although most types of farms experienced some deterioration in their financial perspective between 1969 and 1982, the severity of this deterioration differed markedly by type of farm. However, this does not imply that all farms within a specific type experienced the same level of financial instability.

Financial statements and indicators such as the ones developed here provide a better base from which indications about the financial well-being of farms can be drawn. Aggregate statistics tend to mask changes in the financial structure and situation of specific farms. As a result, changes in aggregate indicators are often attributed to all types of farms and may provide misleading signals with regard to the financial well-being of the farm sector.

However, the development of more micro measures (similar to the work initiated in (1)) is needed to obtain more reliable and accurate barometers of the financial well-being of farms. Because of the problems associated with the availability of a continuous financial data series and the subsequent assumptions made to disaggregate the U.S. balance sheet, future efforts in this area will be directed toward developing annual, more disaggregated, financial indicators based on information obtained from the Farm Costs and Returns Survey. 7/

7/ For a detailed description of The Farm Costs and Returns Survey, see (1).

Table 6--Rate of return on equity capital, by type of farm,
selected years, 1969-82 1/

Type of farm	: 1969	: 1974	: 1978	: 1982
All farms	: 3.08	5.42	2.82	1.85
Crop	: 2.65	8.53	2.73	2.23
Cash grain	: 4.92	8.67	1.36	.23
Cotton	: 5.84	5.62	3.10	9.35
Tobacco	: 7.19	10.00	3.81	3.30
Other field crop	: 3.68	12.00	2.23	7.09
Vegetable and melon	: 7.92	16.19	15.03	14.00
Fruit and tree nut	: -84	3.63	7.69	1.99
Horticulture specialty	: -25.03	-6.81	10.31	12.43
General crop	: -1.72	6.77	3.59	2.62
Livestock	: 3.85	1.79	3.17	1.57
Cattle, hog, and sheep	: 3.12	.42	1.85	.34
Dairy	: 6.67	5.98	8.14	6.35
Poultry and egg	: 11.00	1.08	12.13	14.48
Animal specialty	: -9.35	7.48	-3.08	-2.06
General livestock	: -4.78	3.99	1.41	-6.84

1/ Total returns imputed to operators' labor and management were disaggregated by type of farm using available census data for hired labor expenses and number of farms, respectively. In a given year, net worth was calculated as the average of the values presented in two consecutive balance sheets.

Sources: Calculated from table 4, appendix tables 1-16, and (4).

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Appendix table 1—Crop farms balance sheet components (excluding farm households), January 1, 1969

Item	Total, all farms <u>1/</u>	Total, crop <u>farms <u>1/</u></u>	Cash grain	Cotton	Tobacco	Field crop	Other and crop	Vegetable and melon	Fruit and tree	culture mit	Horti- culture specialty: crop
<u>Million dollars</u>											
Physical assets:											
Real estate	188,400	89,601	51,005	5,913	3,771	4,244	3,496	8,809	2,599	9,764	
Nonreal estate—											
Livestock and poultry	20,200	1,184	632	29	62	54	16	21	4	367	
Machinery and motor vehicles	27,500	13,239	7,504	869	646	925	444	708	505	1,637	
Crops stored	10,600	8,931	3,500	471	521	781	701	1,007	1,024	926	
Financial assets	13,100	—	—	—	—	—	—	—	—	—	
Total assets <u>1/</u>	259,800	112,955	62,641	7,282	5,000	6,004	4,657	10,545	4,132	12,695	
Liabilities:											
Real estate	24,700	10,107	5,425	373	864	584	353	1,548	260	701	
Nonreal estate	21,900	7,537	3,991	298	1,004	640	347	636	177	444	
Total liabilities <u>1/</u>	46,600	17,644	9,416	671	1,868	1,224	699	2,184	437	1,145	
Net worth	213,200	95,311	53,225	6,611	3,132	4,780	3,958	8,361	3,695	11,550	

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 2—Crop farms balance sheet components (excluding farm households), January 1, 1970

Item	Total,	Total, all farms <u>1/</u>	Total, crop farms <u>1/</u>	Cash grain	Cotton	Tobacco	Other crop	Vegetable crop	Fruit and tree: culture and crop	Horti- culture and crop
<u>Million dollars</u>										
Physical assets:										
Real estate	194,200	92,360	52,575	6,095	3,887	4,375	3,604	9,080	2,679	10,065
Nonreal estate—										
Livestock and poultry	23,500	1,377	735	34	72	62	19	24	4	427
Machinery and motor vehicles	28,400	13,672	7,750	897	667	956	459	732	521	1,691
Crops stored	10,900	9,184	3,599	484	535	803	721	1,035	1,053	953
Financial assets										
	13,600	—	—	—	—	—	—	—	—	—
Total assets <u>1/</u>	270,600	116,593	64,659	7,510	5,161	6,196	4,803	10,871	4,257	13,136
Liabilities:										
Real estate	26,200	10,721	5,755	395	916	619	374	1,642	276	744
Nonreal estate	22,700	7,812	4,136	309	1,041	663	359	659	183	460
Total liabilities <u>1/</u>	48,900	18,533	9,891	704	1,957	1,282	733	2,301	459	1,204
Net worth	221,700	98,060	54,768	6,806	3,204	4,914	4,070	8,570	3,798	11,932

1/ = Not available.1/ Totals may not add due to rounding.

Appendix table 3—Crop farms balance sheet components (excluding farm households), January 1, 1974

Item	Total, all farms <u>1/</u>	Total, crop farms <u>1/</u>	Cash grain	Cotton	Tobacco	Field crop	Melon	Other crop	Vegetable and crop	Fruit and tree	Horti- culture and specialty	General crop
	<u>Million dollars</u>											
Physical assets:												
Real estate	297,100	172,434	116,277	7,361	5,973	16,508	4,459	10,563	2,374	5	374	8,918
Nonreal estate—												
Livestock and poultry	42,400	3,931	2,804	61	131	304	29	40				558
Machinery and motor vehicles	39,500	23,732	16,234	1,058	979	2,311	596	968				1,212
Crops stored	22,000	20,024	11,185	951	812	2,759	1,123	1,495				807
Financial assets	18,000	—	—	—	—	—	—	—	—	—	—	—
Total assets <u>1/</u>	419,000	220,121	146,500	9,431	7,895	21,882	6,207	13,066	3,644			11,496
Liabilities:												
Real estate	35,800	18,019	10,512	795	558	2,041	420	2,136	422			1,136
Nonreal estate	32,300	13,833	8,438	927	330	1,713	406	699	376			376
Total Liabilities <u>1/</u>	68,100	31,852	18,950	1,722	887	3,754	826	2,835	798			2,080
Net worth	350,900	188,268	127,550	7,709	7,008	18,128	5,381	10,231	2,846			9,416

1/ = Not available.1/ Totals may not add due to rounding.

Appendix table 4—Crop farms balance sheet components (excluding farm households), January 1, 1975

Item	Total,	Total, all farms	Total, crop farms 1/	Cash grain	Cotton	Tobacco	Crop	Melon	Other and crop	Vegetable and tree	Fruit and nut	Horti- culture and specialty	crop
<u>Million dollars</u>													
Physical assets:													
Real estate	326,900	189,729	127,940		8,099	6,572	18,164		4,906	11,622		2,612	9,813
Nonreal estate—													
Livestock and poultry	24,500	2,272	1,620		35	76	175		17	23		3	323
Machinery and motor vehicles	49,100	29,500	20,179		1,315	1,217	2,872		741	1,203		465	1,507
Crops stored	23,300	21,207	11,846		1,007	860	2,922		1,189	1,584		944	854
Financial assets	18,200	—	—		—	—	—		—	—		—	—
Total assets 1/	442,000	242,708	161,585		10,456	8,725	24,133		6,853	14,432		4,024	12,497
Liabilities:													
Real estate	40,500	20,385	11,892		899	631	2,309		475	2,417		477	1,285
Nonreal estate	35,300	15,117	9,221		1,013	360	1,872		443	764		411	1,032
Total liabilities 1/	75,800	35,502	21,113		1,912	991	4,181		918	3,181		888	2,317
Net worth	366,200	207,206	140,472		8,544	7,734	19,952		5,935	11,251		3,136	10,180

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 5—Crop farms balance sheet components (excluding farm households), January 1, 1978

Item	Total,	Total,	Cash	Cotton	Tobacco	Crop	Melon	Other	Vegetable	Fruit	Horti-culture	Horti-culture : General
	: all	: crop	: grain			: field	: and	: and tree:				
	farms 1/	farms 1/				crop	crop	nut	specialty	crop		
<u>Million dollars</u>												
Physical assets:												
Real estate	507,600	276,022	183,493	13,249	10,754	23,310	7,571	18,620	4,046	14,980		
Nonreal estate—												
Livestock and poultry	31,900	2,072	1,423	47	94	121	20	31	5	331		
Machinery and motor vehicles	70,300	40,124	26,257	2,148	1,994	3,711	1,133	1,907	748	2,227		
Crops stored	24,800	22,168	11,199	1,504	1,126	1,936	1,578	2,294	1,456	1,077		
Financial assets	22,500	—	—	—	—	—	—	—	—	—		
Total assets 1/	657,100	340,387	222,372	16,948	13,968	29,078	10,302	22,851	6,255	18,615		
Liabilities:												
Real estate	57,800	30,629	18,878	1,482	1,095	2,940	819	2,814	699	1,901		
Nonreal estate	56,800	27,989	17,849	1,861	844	2,608	843	1,592	626	1,766		
Total liabilities 1/	114,600	58,618	36,727	3,343	1,938	5,549	1,662	4,406	1,325	3,668		
Net worth	542,500	281,769	185,644	13,605	12,030	23,529	8,640	18,446	4,930	14,947		

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 6—Crop farms balance sheet components (excluding farm households), January 1, 1979

Item	Total	Total	Total	Other	Vegetable	Fruit	Horti-
	all	crop	Cash	field	: and	: and tree:	culture
	farms <u>1/</u>	farms <u>1/</u>	grain	Tobacco	crop	melon	specialty : crop
<u>Million dollars</u>							
Physical assets:							
Real estate	600,900	326,757	217,220	15,684	12,731	27,594	8,963
Nonreal estate—							
Livestock and poultry	51,300	3,332	2,289	76	151	194	33
Machinery and motor vehicles	78,700	44,919	29,394	2,405	2,232	4,154	1,268
Crops stored	28,000	25,029	12,644	1,698	1,271	2,185	1,781
Financial assets	25,500	—	—	—	—	—	—
Total assets <u>1/</u>	784,400	400,037	261,547	19,863	16,385	34,127	12,045
Liabilities:							
Real estate	65,400	34,657	21,361	1,677	1,239	3,327	927
Nonreal estate	66,300	32,670	20,834	2,172	985	3,044	984
Total liabilities <u>1/</u>	131,700	67,327	42,195	3,849	2,224	6,371	1,911
Net worth	652,700	332,710	219,352	16,014	14,161	27,756	10,134
— = Not available.							
<u>1/</u> Totals may not add due to rounding.							

Appendix table 7—Crop farms balance sheet components (excluding farm households), January 1, 1982

Item	Total, all farms <u>1/</u>	Total, crop farms <u>1/</u>	Cash grain	Cotton	Tobacco	Field crop	Other and melon	Vegetable and nut	Fruit and melon	Horti- culture and specialty	General crop
<u>Million dollars</u>											
Physical assets:											
Real estate	754,600	425,045	281,585	18,090	15,598	31,596	13,188	35,265	7,817	21,906	
Nonreal estate—											
Livestock and poultry	53,600	3,654	2,738	48	161	144	28	39	8	488	
Machinery and motor vehicles	103,000	59,928	41,261	2,352	3,000	4,604	1,611	3,092	1,192	2,814	
Crops stored	36,300	32,833	17,619	1,798	1,503	2,575	2,269	3,346	2,211	1,512	
Financial assets	32,300	—	—	—	—	—	—	—	—	—	
Total assets <u>1/</u>	979,800	521,460	343,203	22,288	20,263	38,919	17,096	41,742	11,228	26,721	
Liabilities:											
Real estate	97,000	52,110	33,501	2,208	1,803	3,765	1,567	5,145	1,284	2,837	
Nonreal estate	91,500	45,884	30,608	2,679	1,342	3,227	1,558	2,812	1,110	2,546	
Total liabilities <u>1/</u>	188,500	97,993	64,109	4,887	3,145	6,993	3,126	7,956	2,394	5,383	
Net worth	791,300	423,467	279,094	17,401	17,118	31,927	13,970	33,786	8,834	21,338	

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 8—Crop farms balance sheet components (excluding farm households), January 1, 1983

Item	Total,	Total,	Total,	Total,	Other	Vegetable	Fruit	Horti-	
	all	crop	Cash	: field	: and	: and tree: culture	: General	: specialty	: crop
	farms <u>1/</u>	farms <u>1/</u>	grain	Tobacco	crop	melon	mut		
<u>Million dollars</u>									
Physical assets:									
Real estate	709,200	399,473	264,644	17,002	14,660	29,695	12,394	33,143	7,346
Nonreal estate—									
Livestock and poultry	53,000	3,613	2,707	47	159	142	28	39	8
Machinery and motor vehicles	105,800	61,557	42,383	2,416	3,082	4,729	1,655	3,177	1,225
Crops stored	41,300	37,355	20,046	2,045	1,710	2,930	2,581	3,807	2,516
Financial assets	34,700	—	—	—	—	—	—	—	—
Total assets <u>1/</u>	944,000	501,998	329,780	21,510	19,611	37,496	16,658	40,166	11,095
<u>Million dollars</u>									
Liabilities:									
Real estate	100,800	54,151	34,814	2,295	1,873	3,913	1,629	5,346	1,334
Nonreal estate	102,000	51,149	34,120	2,987	1,496	3,598	1,737	3,135	1,238
Total liabilities <u>1/</u>	202,800	105,300	68,934	5,282	3,369	7,511	3,366	8,481	2,572
Net worth	741,200	396,698	260,846	16,228	16,242	29,985	13,292	31,685	8,523
									19,895

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 9—Livestock farms balance sheet components (excluding farm households), January 1, 1969

Item	Total, all farms 1/	Total, livestock farms 1/	Cattle, hog, and sheep	Dairy	Poultry and egg	Animal specialty	General livestock
<u>Million dollars</u>							
Physical assets:							
Real estate	188,400	98,799	72,639	18,915	3,199	1,494	2,553
Nonreal estate—							
Livestock and poultry	20,200	19,016	11,325	4,394	2,774	248	275
Machinery and motor vehicles	27,500	14,261	8,630	4,276	645	193	517
Crops stored	10,600	1,669	1,218	273	54	6	117
Financial assets	13,100	—	—	—	—	—	—
Total assets 1/	259,800	133,745	93,812	27,858	6,672	1,941	3,461
Liabilities:							
Real estate	24,700	14,593	10,665	2,903	669	153	203
Nonreal estate	21,900	14,363	10,521	3,016	626	71	129
Total liabilities 1/	46,600	28,956	21,187	5,919	1,295	224	331
Net worth	213,200	104,789	72,626	21,939	5,377	1,717	3,130

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 10—Livestock farms balance sheet components (excluding farm households), January 1, 1970

Item	Total, all farms 1/	Total, livestock farms 1/	Cattle, hog, and sheep	Dairy	Poultry and egg	Animal specialty	General livestock
<u>Million dollars</u>							
Physical assets:							
Real estate	194,200	101,840	74,875	19,497	3,297	1,540	2,631
Nonreal estate—							
Livestock and poultry	23,500	22,123	13,175	5,112	3,228	289	320
Machinery and motor vehicles	28,400	14,728	8,913	4,416	666	200	534
Crops stored	10,900	1,716	1,253	281	55	6	121
Financial assets	13,600	—	—	—	—	—	—
Total assets 1/	270,600	140,407	98,216	29,306	7,246	2,035	3,606
Liabilities:							
Real estate	26,200	15,479	11,313	3,079	709	162	215
Nonreal estate	22,700	14,888	10,906	3,126	649	73	134
Total liabilities 1/	48,900	30,367	22,219	6,205	1,358	235	349
Net worth	221,700	110,040	75,997	23,101	5,888	1,800	3,257

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 11—Livestock farms balance sheet components (excluding farm households), January 1, 1974

Item	: Total, : all : farms <u>1/</u>	: Total, : livestock : farms <u>1/</u>	: Cattle, : hog, : and sheep	: Dairy	: Poultry and egg	: Animal egg	: General specialty	: livestock
	<u>Million dollars</u>							
Physical assets:	:							
Real estate	: 297,100	124,666	90,925	26,036	4,009	1,364		2,332
Nonreal estate—	:							
Livestock and poultry	: 42,400	38,469	21,284	9,653	6,735	378		418
Machinery and motor vehicles	: 39,500	15,768	8,994	5,449	799	143		383
Crops stored	: 22,000	1,976	1,381	392	95	5		102
Financial assets	: 18,000	—	—	—	—	—	—	—
Total assets <u>1/</u>	: 419,000	180,879	122,585	41,530	11,638	1,890		3,234
Liabilities:	:							
Real estate	: 35,800	17,781	11,148	5,077	980	248		328
Nonreal estate	: 32,300	18,467	11,975	5,274	794	151		274
Total liabilities <u>1/</u>	: 68,100	36,248	23,123	10,350	1,774	398		602
Net worth	: 350,900	144,632	99,462	31,180	9,865	1,492		2,632

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 12—Livestock farms balance sheet components (excluding farm households), January 1, 1975

Item	: Total, : all : farms <u>1/</u>	: Total, : livestock : farms <u>1/</u>	: Cattle, : hog, : and sheep	: Dairy	: Poultry and egg	: Animal egg	: General specialty	: livestock
	<u>Million dollars</u>							
Physical assets:	:							
Real estate	: 326,900	137,171	100,046	28,648	4,411	1,501		2,565
Nonreal estate—	:							
Livestock and poultry	: 24,500	22,228	12,298	5,578	3,892	218		242
Machinery and motor vehicles	: 49,100	19,600	11,180	6,773	994	178		476
Crops stored	: 23,300	2,093	1,463	415	101	5		108
Financial assets	: 18,200	—	—	—	—	—	—	—
Total assets <u>1/</u>	: 442,000	181,092	124,987	41,414	9,398	1,902		3,391
Liabilities:	:							
Real estate	: 40,500	20,115	12,612	5,743	1,104	280		371
Nonreal estate	: 35,300	20,183	13,087	5,764	867	165		300
Total liabilities <u>1/</u>	: 75,800	40,298	25,699	11,507	1,971	445		671
Net worth	: 366,200	140,794	99,288	29,907	7,427	1,457		2,720

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 13—Livestock farms balance sheet components (excluding farm households), January 1, 1978

Item	: Total, : all : farms <u>1/</u>	: Total, : livestock : farms <u>1/</u>	: Cattle, : hog, : and sheep	: Dairy	: Poultry : and egg	: Animal : specialty	: General : livestock
<u>Million dollars</u>							
Physical assets:							
Real estate	: 507,600	231,578	179,060	34,741	5,750	5,089	6,937
Nonreal estate—	:						
Livestock and poultry	: 31,900	29,828	17,933	6,366	4,640	420	468
Machinery and motor vehicles	: 70,300	30,176	19,409	7,876	1,347	510	1,034
Crops stored	: 24,800	2,632	1,969	364	98	9	191
Financial assets							
Total assets <u>1/</u>	: 657,100	294,213	218,371	49,347	11,835	6,028	8,630
Liabilities:							
Real estate	: 57,800	27,171	18,854	5,602	1,465	656	594
Nonreal estate	: 56,800	28,811	20,721	5,914	1,055	461	660
Total liabilities <u>1/</u>	: 114,600	55,982	39,575	11,516	2,520	1,117	1,254
Net worth	: 542,500	238,231	178,796	37,831	9,315	4,911	7,376

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 14—Livestock farms balance sheet components (excluding farm households), January 1, 1979

Item	: Total, : all : farms <u>1/</u>	: Total, : livestock : farms <u>1/</u>	: Cattle, : hog, : and sheep	: Dairy	: Poultry : and egg	: Animal : specialty	: General : livestock
<u>Million dollars</u>							
Physical assets:							
Real estate	: 600,900	274,143	211,972	41,127	6,807	6,025	8,212
Nonreal estate—	:						
Livestock and poultry	: 51,300	47,968	28,840	10,237	7,462	676	753
Machinery and motor vehicles	: 78,700	33,781	21,728	8,817	1,507	571	1,158
Crops stored	: 28,000	2,971	2,223	411	111	10	216
Financial assets							
Total assets <u>1/</u>	: 784,400	358,863	264,763	60,592	15,887	7,282	10,339
Liabilities:							
Real estate	: 65,400	30,743	21,334	6,338	1,658	742	672
Nonreal estate	: 66,300	33,630	24,187	6,904	1,231	538	771
Total liabilities <u>1/</u>	: 131,700	64,373	45,521	13,242	2,889	1,280	1,443
Net worth	: 652,700	294,490	219,242	47,350	12,998	6,002	8,896

— = Not available.

1/ Totals may not add due to rounding.

Appendix table 15—Livestock farms balance sheet components (excluding farm households), January 1, 1982

Item	: Total, : all : farms <u>1/</u>	: Total, : livestock : farms <u>1/</u>	: Cattle, : hog, : and sheep	: Poultry, : and egg	: Animal : specialty	: General : livestock
<u>Million dollars</u>						
Physical assets:						
Real estate	: 754,600	329,555	245,536	53,649	8,471	11,901
Nonreal estate—	:					
Livestock and poultry	: 53,600	49,946	27,506	13,182	7,610	982
Machinery and motor vehicles	: 103,000	43,072	25,994	12,930	1,798	1,091
Crops stored	: 36,300	3,467	2,468	617	131	18
Financial assets	: 32,300	—	—	—	—	—
Total assets <u>1/</u>	: 979,800	426,040	301,504	80,378	18,010	13,992
Liabilities:						
Real estate	: 97,000	44,890	26,823	12,820	2,825	1,308
Nonreal estate	: 91,500	45,616	28,486	13,080	1,966	889
Total liabilities <u>1/</u>	: 188,500	90,507	55,309	25,900	4,791	2,197
Net worth	: 791,300	335,533	246,195	54,478	13,219	11,796
<u>— = Not available.</u>						
<u>1/</u> Totals may not add due to rounding.						

Appendix table 16—Livestock farms balance sheet components (excluding farm households), January 1, 1983

Item	: Total, : all : farms <u>1/</u>	: Total, : livestock : farms <u>1/</u>	: Cattle, : hog, : and sheep	: Poultry, : and egg	: Animal : specialty	: General : livestock
<u>Million dollars</u>						
Physical assets:						
Real estate	: 709,200	309,727	230,763	50,421	7,962	11,185
Nonreal estate—	:					
Livestock and poultry	: 53,000	49,387	27,198	13,035	7,525	971
Machinery and motor vehicles	: 105,800	44,243	26,701	13,282	1,847	1,121
Crops stored	: 41,300	3,945	2,808	702	149	21
Financial assets	: 34,700	—	—	—	—	—
Total assets <u>1/</u>	: 944,000	407,302	287,470	77,440	17,483	13,298
Liabilities:						
Real estate	: 100,800	46,649	27,874	13,323	2,936	1,359
Nonreal estate	: 102,000	50,851	31,755	14,581	2,191	991
Total liabilities <u>1/</u>	: 202,800	97,500	59,629	27,904	5,127	2,350
Net worth	: 741,200	309,802	227,841	49,536	12,356	10,948
<u>— = Not available.</u>						
<u>1/</u> Totals may not add due to rounding.						





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